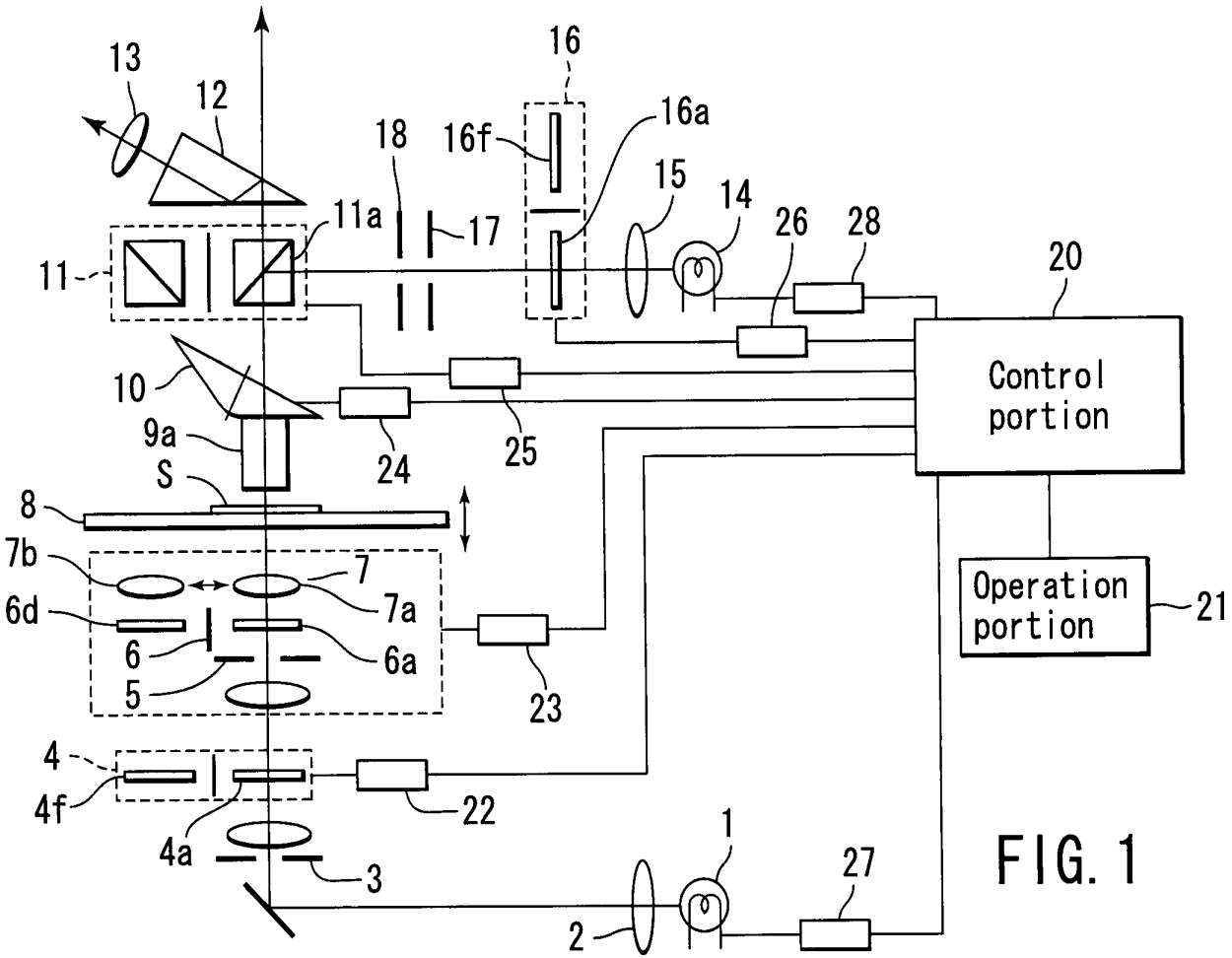

13
12
16
16f
16a
18
11a
17
15
14
26
28
20
11
10
9a
S
24
25
Control portion
8
7b
7
7a
6d
6
6a
5
23
Operation portion
21
4
4f
4a
22
3
1
27
2

FIG. 1

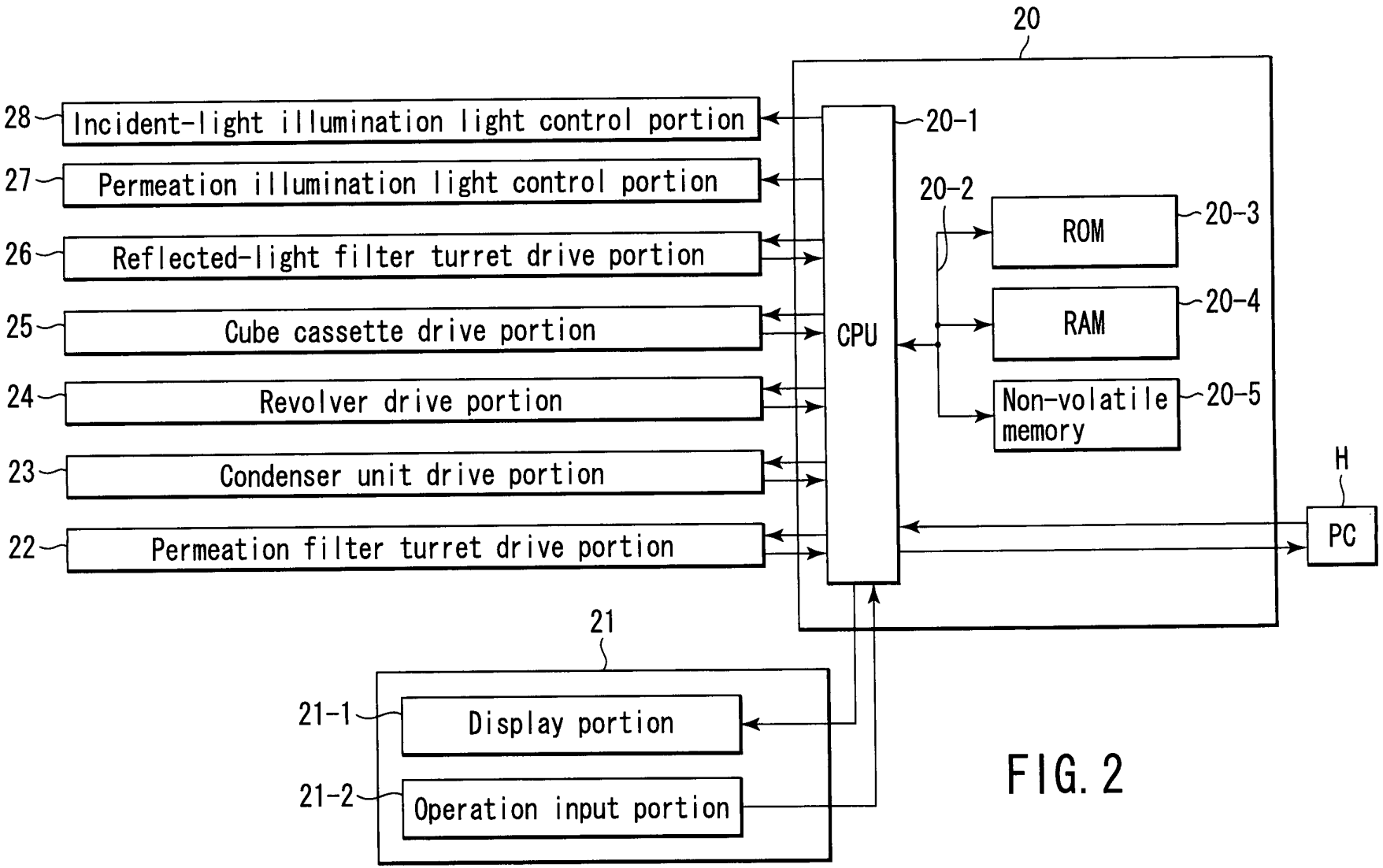

20
28
Incident-light illumination light control portion
27
Permeation illumination light control portion
26
Reflected-light filter turret drive portion
25
Cube cassette drive portion
24
Revolver drive portion
23
Condenser unit drive portion
22
Permeation filter turret drive portion
20-1
CPU
20-2
ROM
20-3
RAM
20-4
Non-volatile memory
20-5
H
PC
21
21-1
Display portion
21-2
Operation input portion

FIG. 2

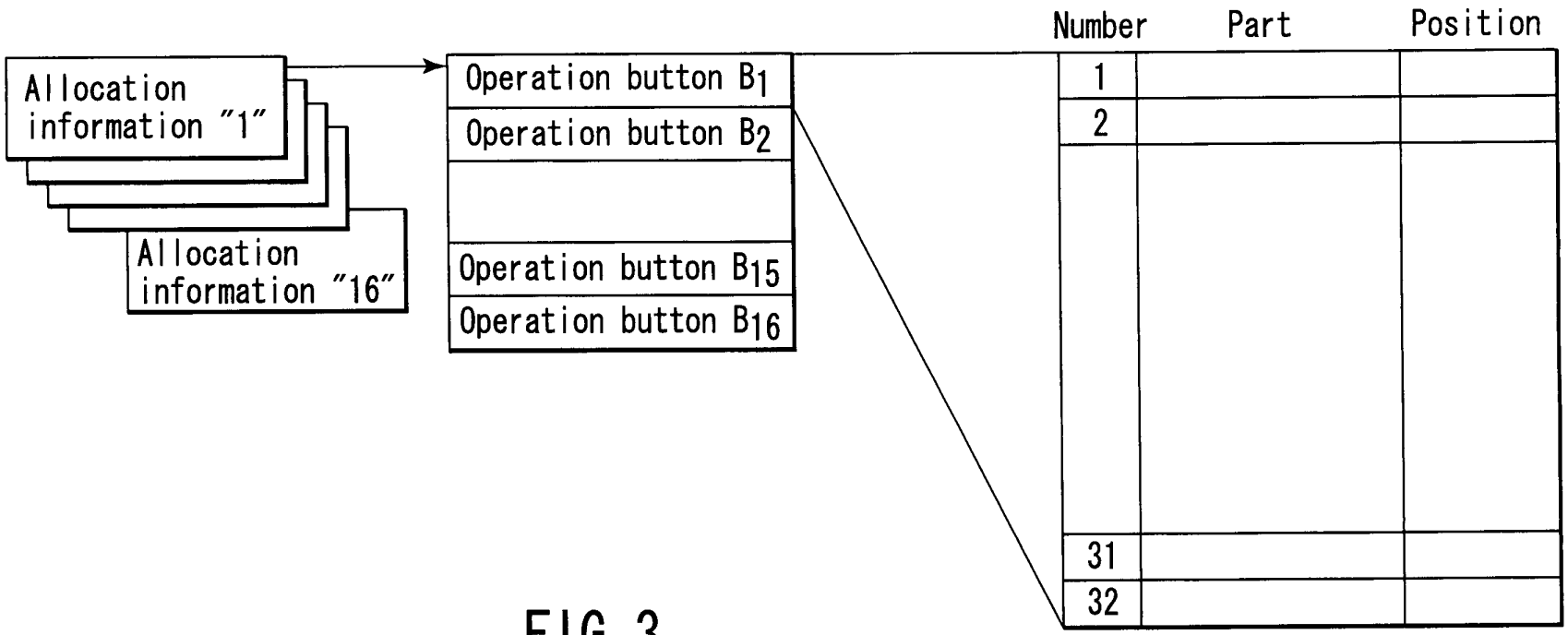
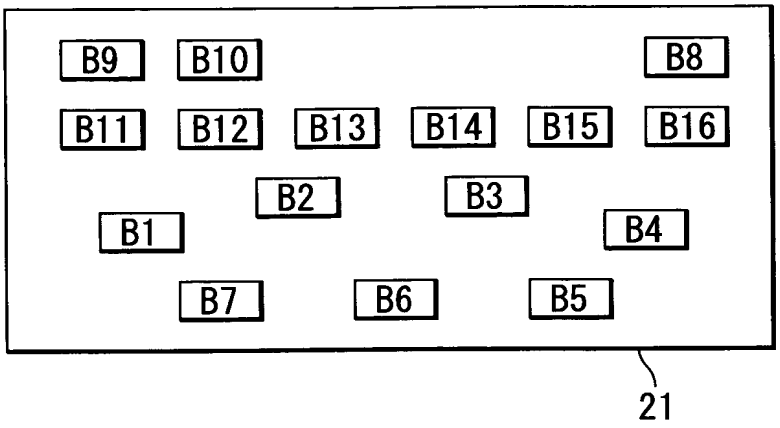

Allocation information "1"
Allocation information "16"
Operation button B1
Operation button B2
Operation button B15
Operation button B16
Number
Part
Position
1
2
31
32

FIG. 3

FIG. 4



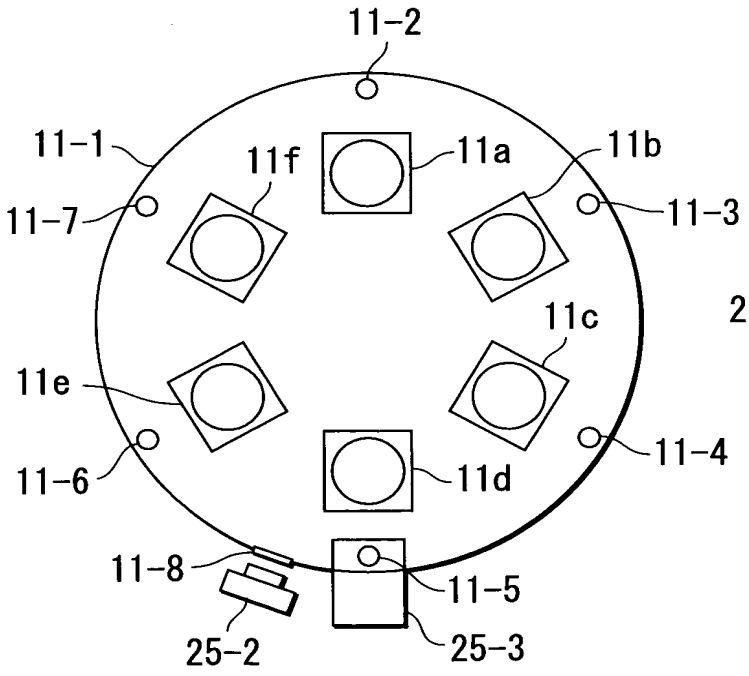


FIG. 5

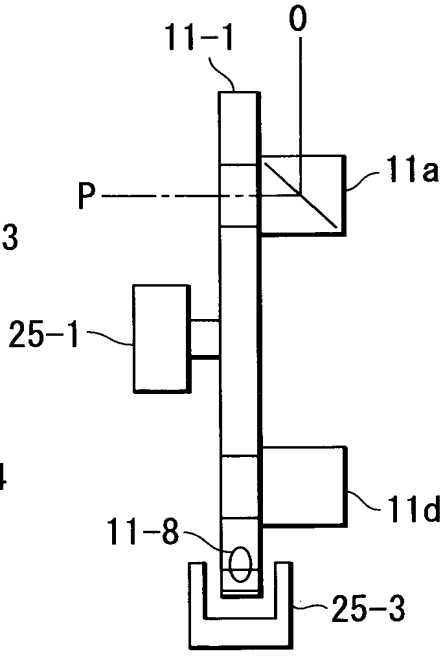


FIG. 6

Part	Position (code)	Attached optical element/meaning
Permeation filter turret 4	1 (4a)	ND6 permeability
	2 (4b)	ND12 permeability
	3 (4c)	ND25 permeability
	4 (4d)	ND50 permeability
	5 (4e)	Nil
	6 (4f)	Douser
Permeation aperture diaphragm 5	0～482	Minimum diameter, Maximum diameter
	+1	
	-1	
Condenser optical element unit 6	1 (6a)	Nil
	2 (6b)	10×phase difference observation ring slit
	3 (6c)	20×phase difference observation ring slit
	4 (6d)	Nil
	5 (6e)	Nil
	6 (6f)	Douser
Condenser top lens 7	IN (7a)	
	OUT (7b)	
Revolver/object lens 10/9	1 (9a)	10×
	2 (9b)	20×
	3 (9c)	40×
	4 (9d)	60×
	5 (9e)	10×phase difference observation
	6 (9f)	20×phase difference observation

FIG. 7

Part	Position (code)	Attached optical element/meaning
Cube cassette 11	1 (11a)	Bright field mirror unit
	2 (11b)	Fluorescence G excitation mirror unit
	3 (11c)	Fluorescence B excitation mirror unit
	4 (11d)	Fluorescence U excitation mirror unit
	5 (11e)	Nil
	6 (11f)	Nil
Permeation illumination light source 1	0～120	Light control voltage
	+1	
	-1	
Reflected-light filter turret 16	1 (16a)	ND6 permeability
	2 (16b)	ND12 permeability
	3 (16c)	ND25 permeability
	4 (16d)	ND50 permeability
	5 (16e)	Nil
	6 (16f)	Douser
Reflected-light illumination light source 14	ON	
	OFF	
Position of sample stage 8	0～2000000	0～20[mm]
	+1	
	-1	
AF (auto focusing)	ON	
	OFF	

FIG. 8

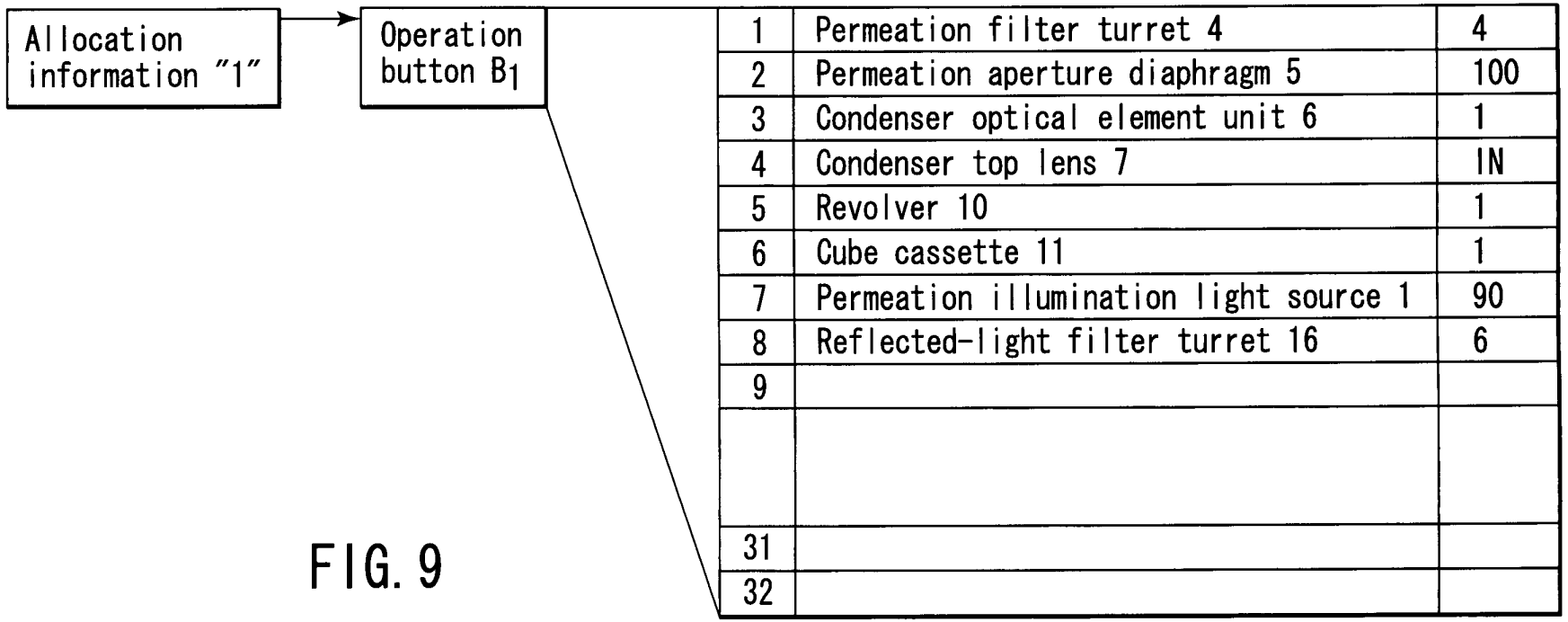

Allocation information "1"
Operation button B_1
Number
Part
Position
1 Permeation filter turret 4 4
2 Permeation aperture diaphragm 5 100
3 Condenser optical element unit 6 1
4 Condenser top lens 7 IN
5 Revolver 10 1
6 Cube cassette 11 1
7 Permeation illumination light source 1 90
8 Reflected-light filter turret 16 6
9
31
32

FIG. 9

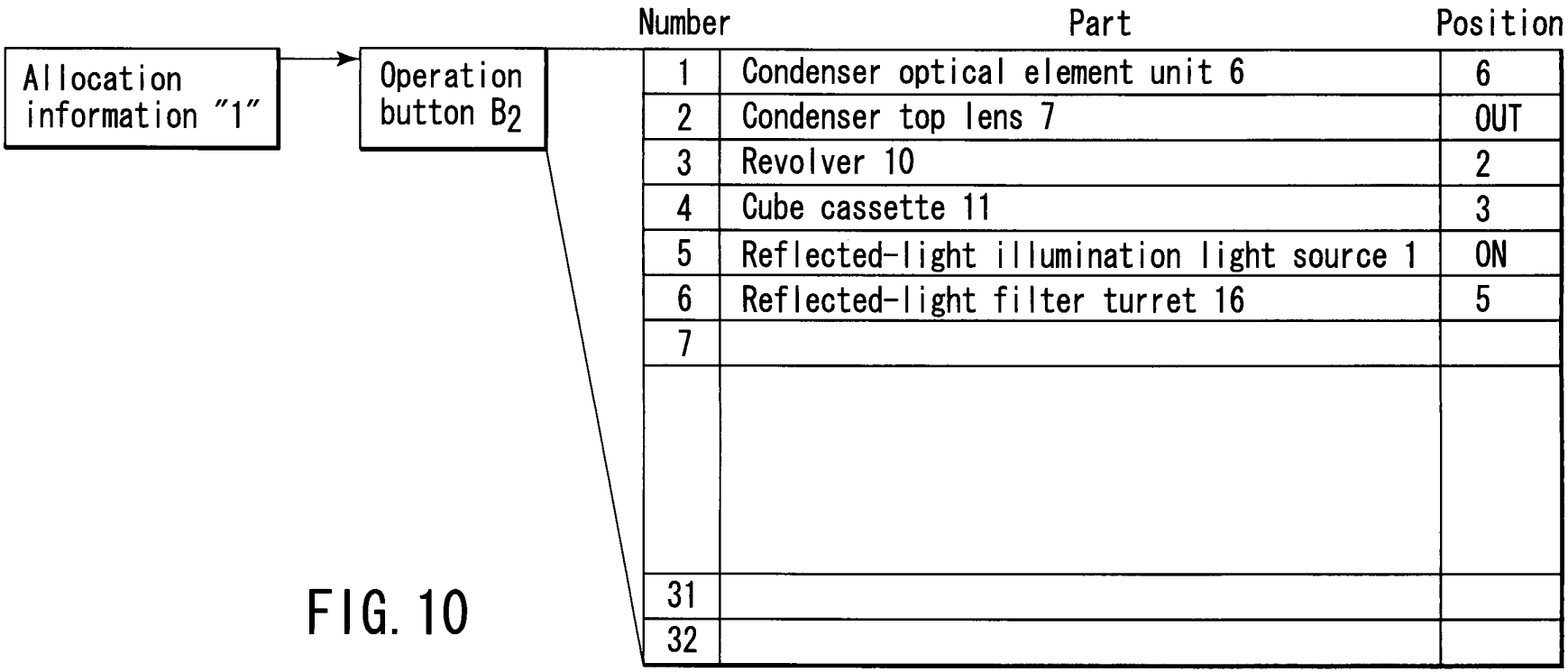

Allocation information "1"
Operation button B_2
Number
Part
Position
1
Condenser optical element unit 6
6
2
Condenser top lens 7
OUT
3
Revolver 10
2
4
Cube cassette 11
3
5
Reflected-light illumination light source 1
ON
6
Reflected-light filter turret 16
5
7
31
32

FIG. 10

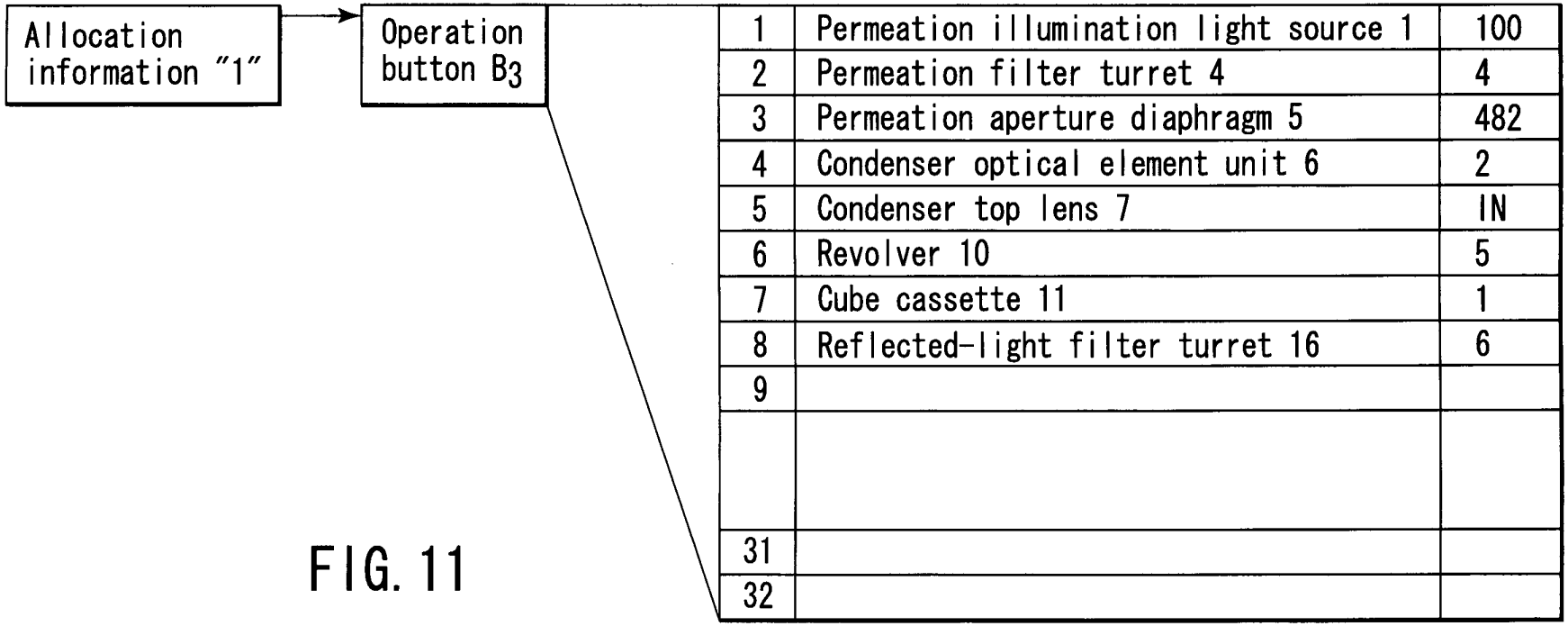

Allocation information "1"
Operation button B3
Number
Part
Position
1 Permeation illumination light source 1 100
2 Permeation filter turret 4 4
3 Permeation aperture diaphragm 5 482
4 Condenser optical element unit 6 2
5 Condenser top lens 7 IN
6 Revolver 10 5
7 Cube cassette 11 1
8 Reflected-light filter turret 16 6
9
31
32

FIG. 11

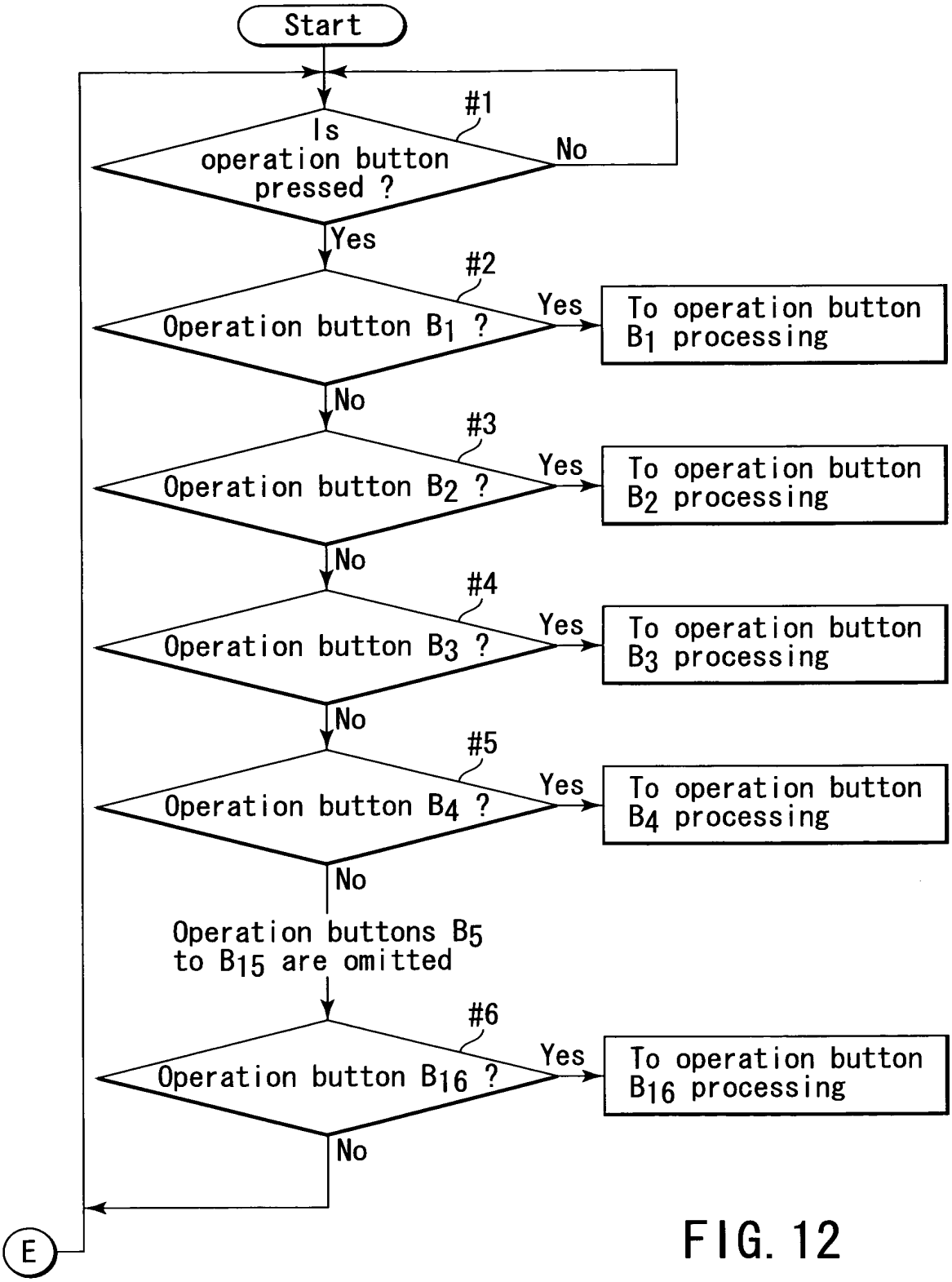

Start
#1
Is operation button pressed ?
No
Yes
#2
Operation button B1 ?
Yes
To operation button B1 processing
No
#3
Operation button B2 ?
Yes
To operation button B2 processing
No
#4
Operation button B3 ?
Yes
To operation button B3 processing
No
#5
Operation button B4 ?
Yes
To operation button B4 processing
No
Operation buttons B5 to B15 are omitted
#6
Operation button B16 ?
Yes
To operation button B16 processing
No
E

FIG. 12

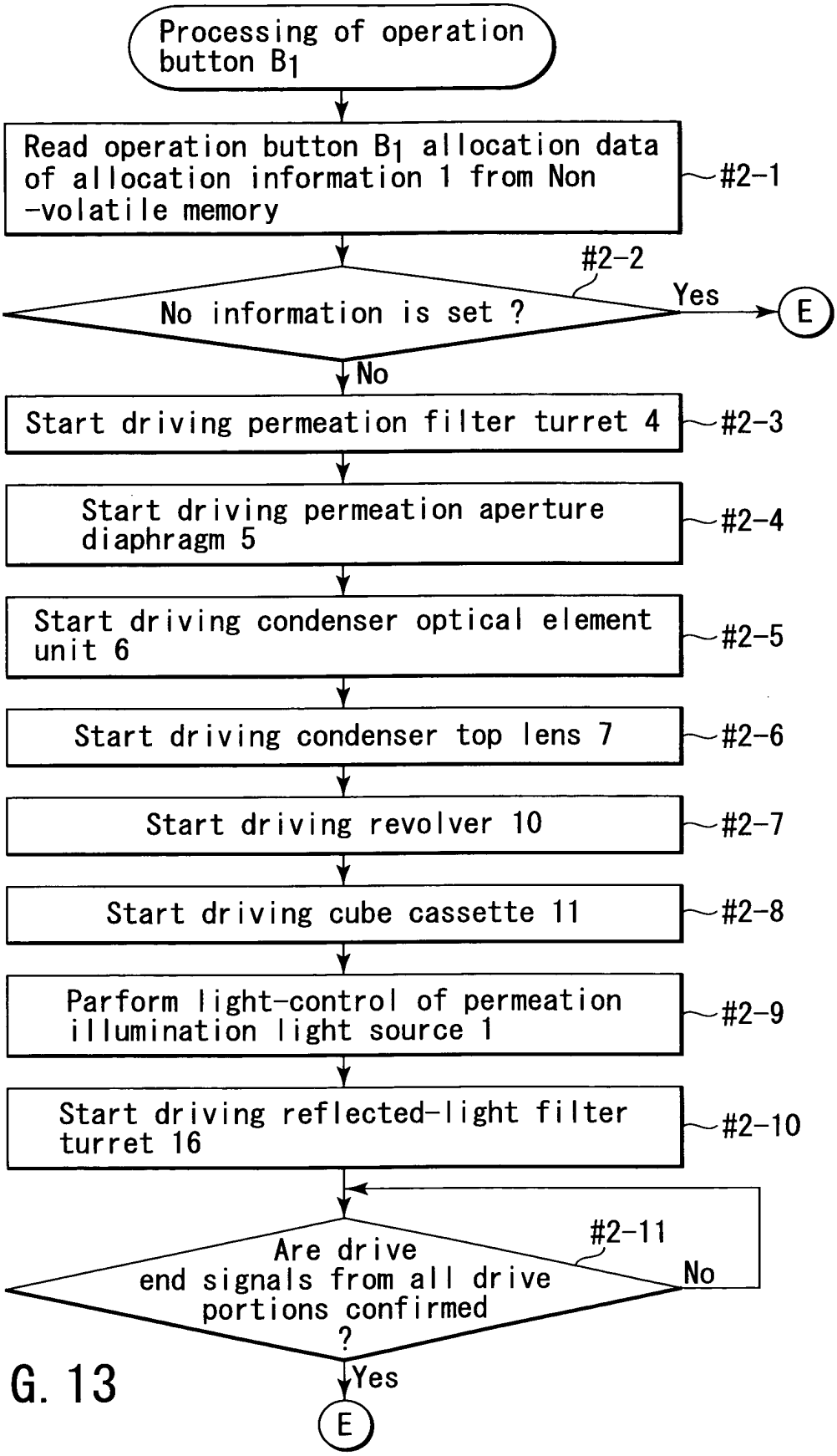

Processing of operation button B_1
Read operation button B_1 allocation data of allocation information 1 from Non -volatile memory
#2-1
#2-2
No information is set ?
Yes
E
No
Start driving permeation filter turret 4
#2-3
Start driving permeation aperture diaphragm 5
#2-4
Start driving condenser optical element unit 6
#2-5
Start driving condenser top lens 7
#2-6
Start driving revolver 10
#2-7
Start driving cube cassette 11
#2-8
Parform light-control of permeation illumination light source 1
#2-9
Start driving reflected-light filter turret 16
#2-10
#2-11
Are drive end signals from all drive portions confirmed ?
No
Yes
E

FIG. 13

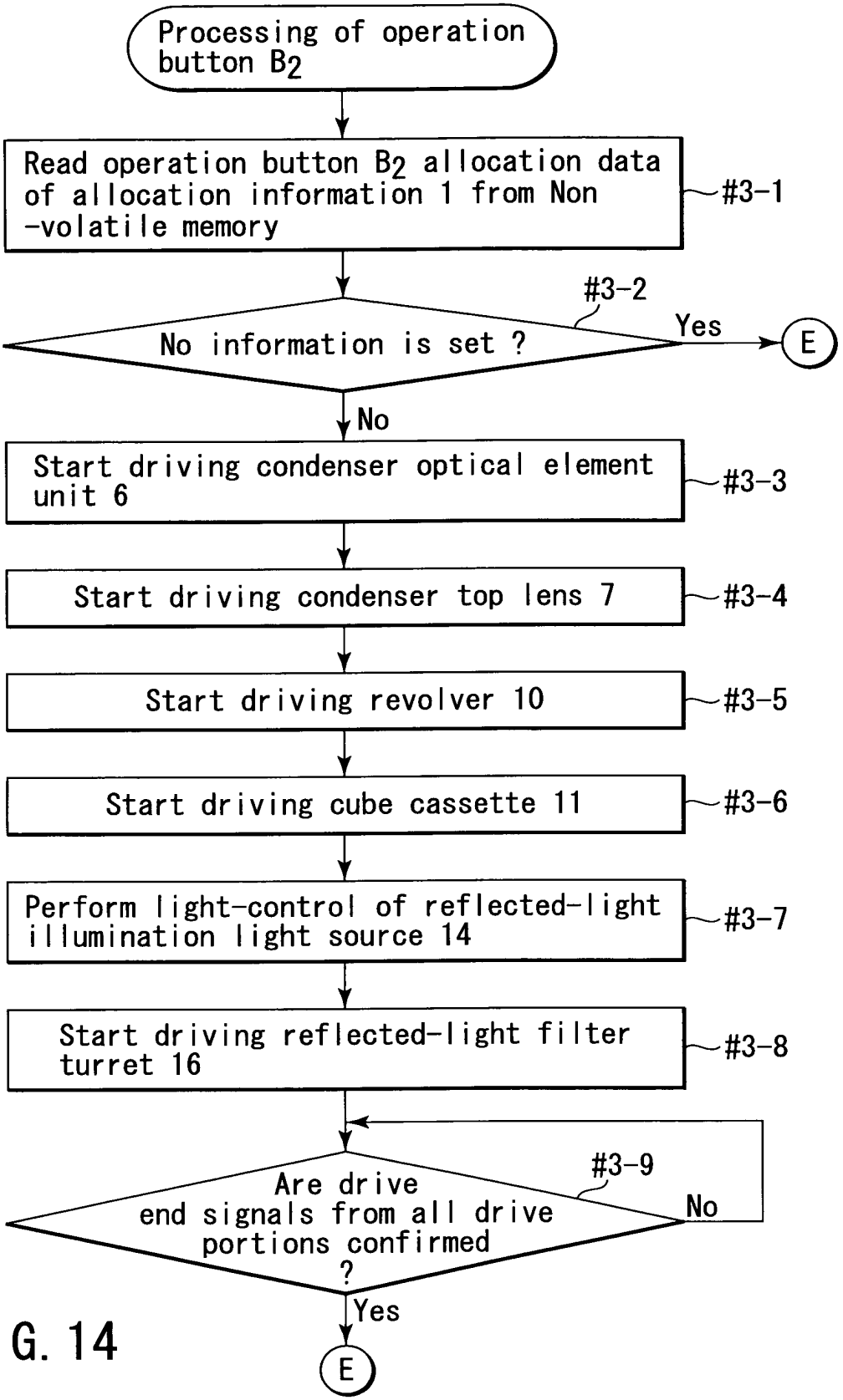

Processing of operation button B_2
Read operation button B_2 allocation data of allocation information 1 from Non-volatile memory
#3-1
#3-2
No information is set ?
Yes
E
No
Start driving condenser optical element unit 6
#3-3
Start driving condenser top lens 7
#3-4
Start driving revolver 10
#3-5
Start driving cube cassette 11
#3-6
Perform light-control of reflected-light illumination light source 14
#3-7
Start driving reflected-light filter turret 16
#3-8
#3-9
Are drive end signals from all drive portions confirmed ?
No
Yes
E

FIG. 14

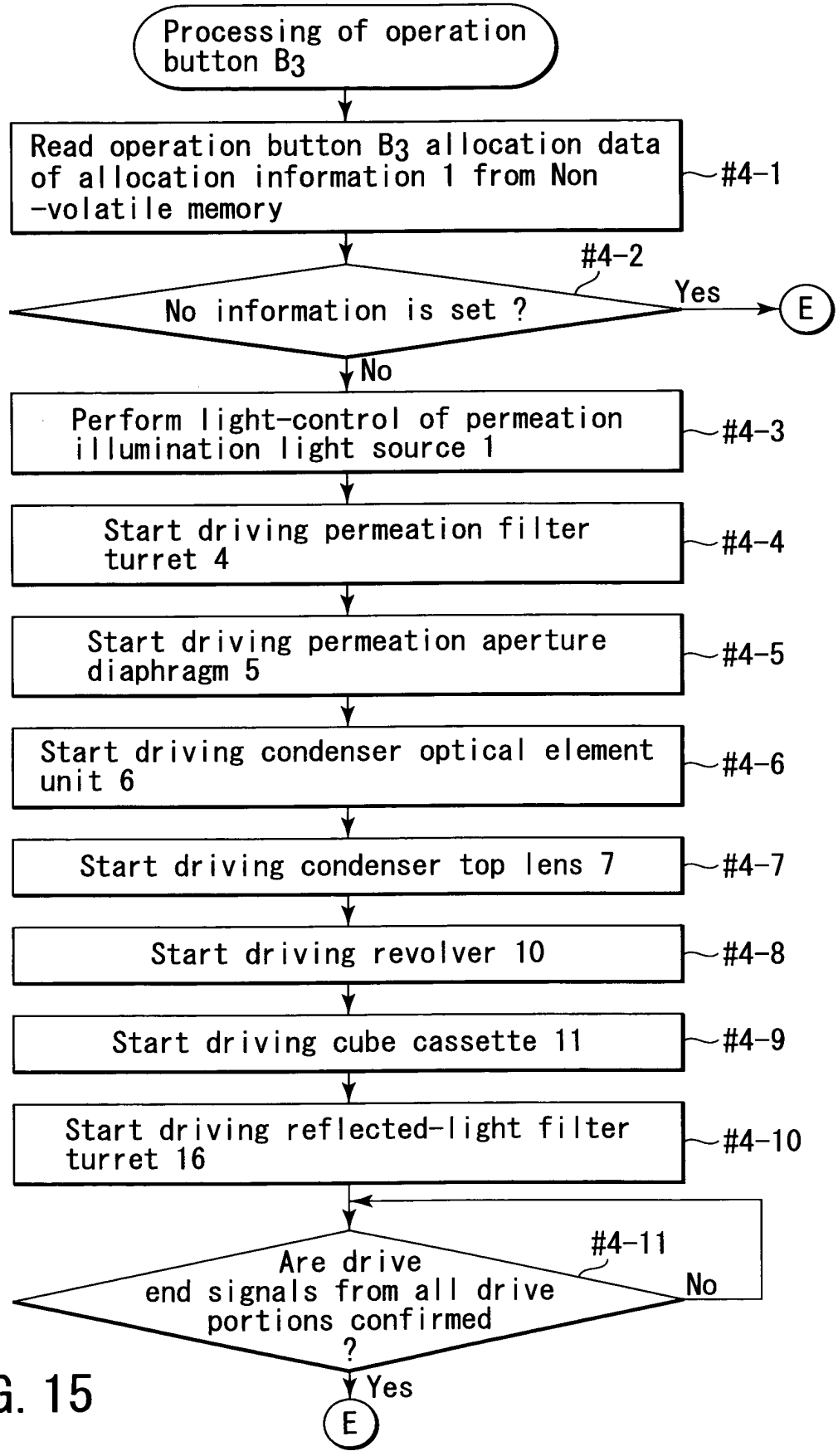

Processing of operation button B3
Read operation button B3 allocation data of allocation information 1 from Non -volatile memory
#4-1
#4-2
No information is set ?
Yes
E
No
Perform light-control of permeation illumination light source 1
#4-3
Start driving permeation filter turret 4
#4-4
Start driving permeation aperture diaphragm 5
#4-5
Start driving condenser optical element unit 6
#4-6
Start driving condenser top lens 7
#4-7
Start driving revolver 10
#4-8
Start driving cube cassette 11
#4-9
Start driving reflected-light filter turret 16
#4-10
#4-11
Are drive end signals from all drive portions confirmed ?
No
Yes
E

FIG. 15

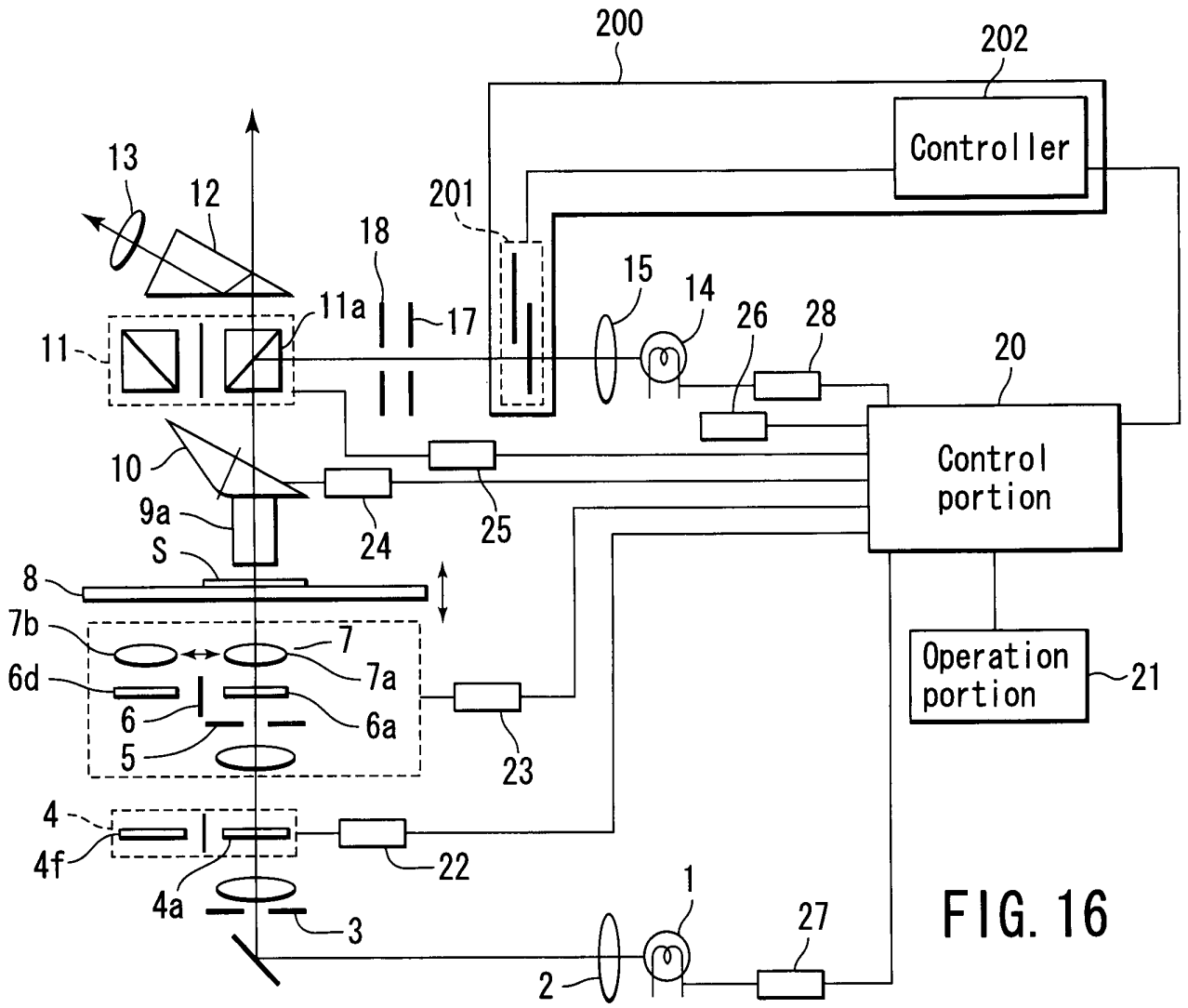

200
202
Controller
13
12
201
18
15
14
26
28
11a
17
11
20
10
Control
portion
9a
S
24
25
8
7b
7
7a
6d
6
6a
5
23
Operation
portion
21
4
4f
22
4a
3
1
27
2

FIG. 16

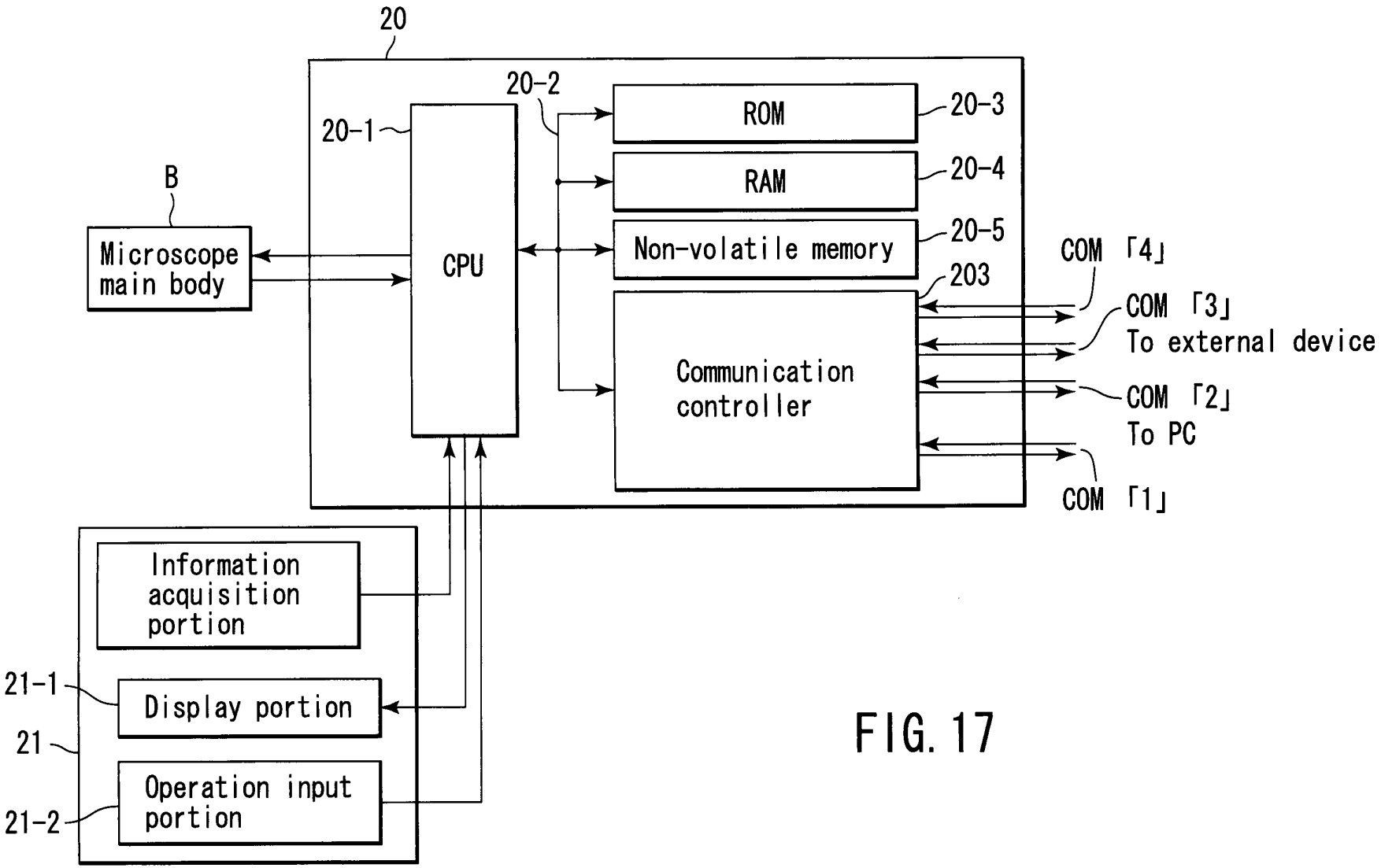

20
20-2
20-1
ROM
20-3
RAM
20-4
B
Microscope main body
CPU
Non-volatile memory
20-5
203
COM 「4」
COM 「3」
To external device
Communication controller
COM 「2」
To PC
COM 「1」
Information acquisition portion
21-1
Display portion
21
Operation input portion
21-2

FIG. 17

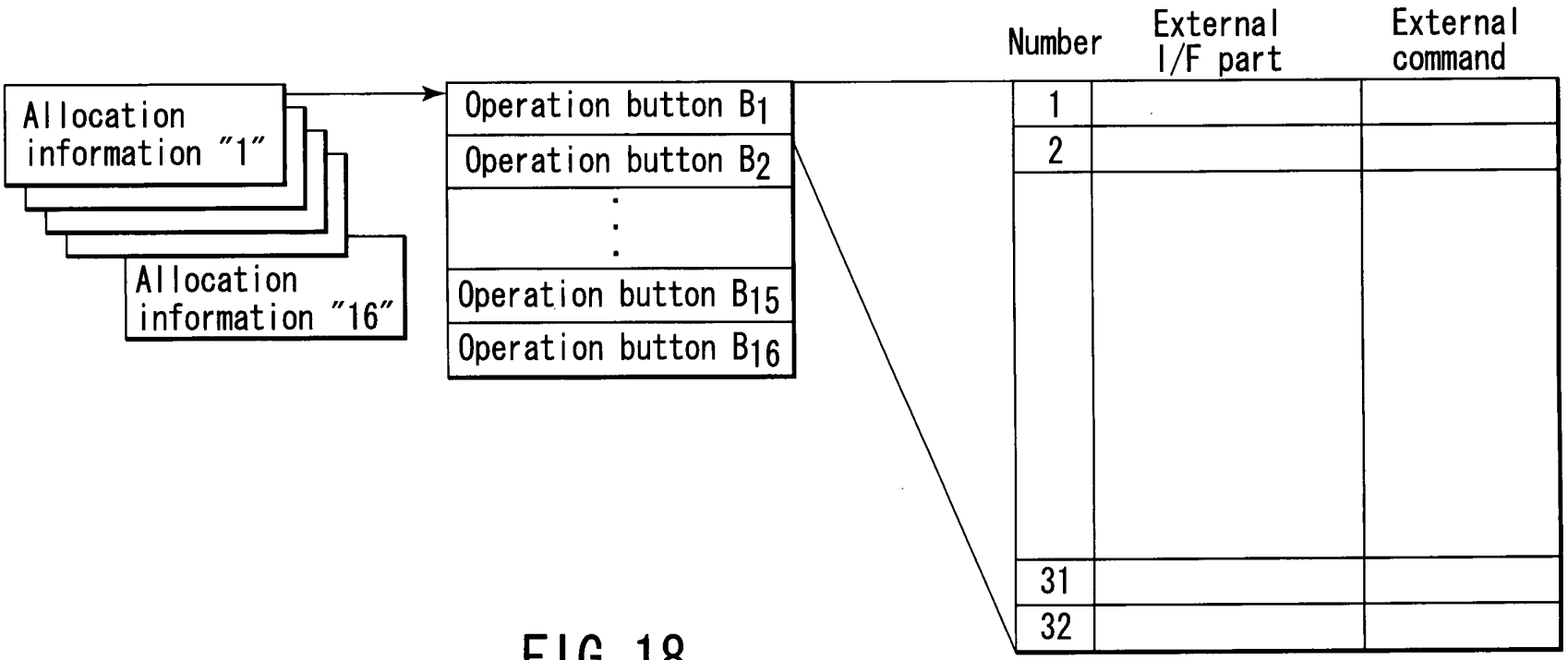

Allocation information "1"
Allocation information "16"
Operation button B1
Operation button B2
Operation button B15
Operation button B16
Number
External I/F part
External command
1
2
31
32

FIG. 18

FIG. 19

Controls of high-speed shutter system 2000	Commands of high-speed shutter system 2000
Shutter closing	# 0001
Shutter opening	# 0000

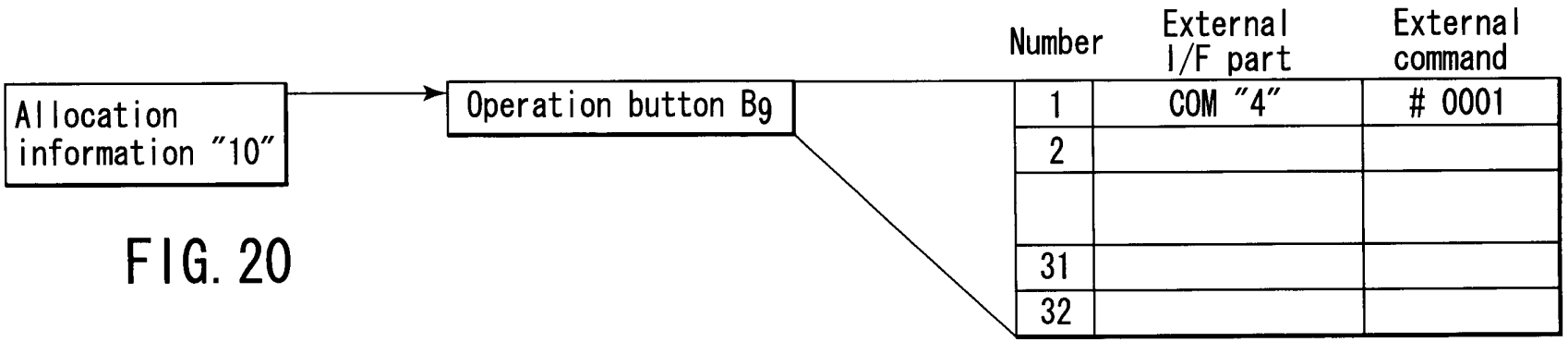


FIG. 20

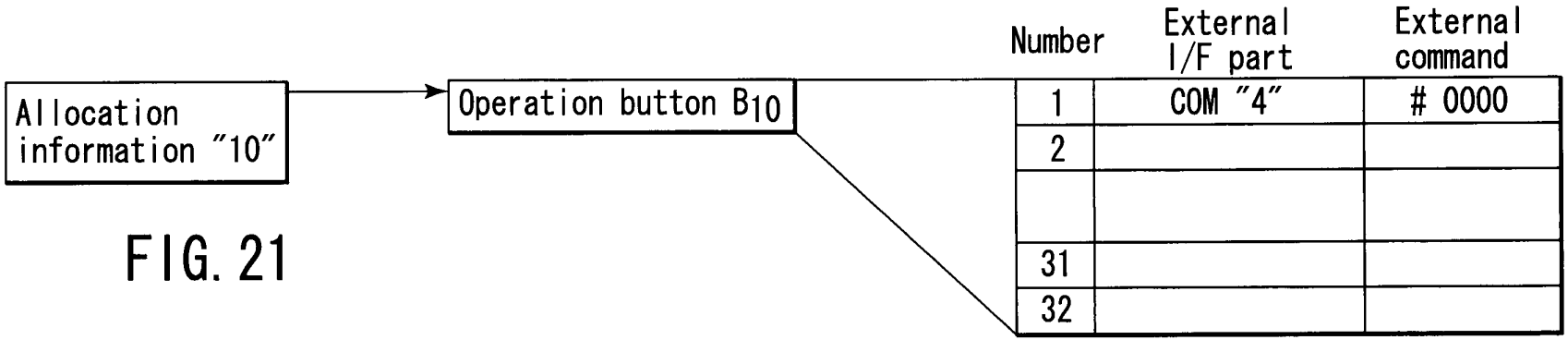


FIG. 21

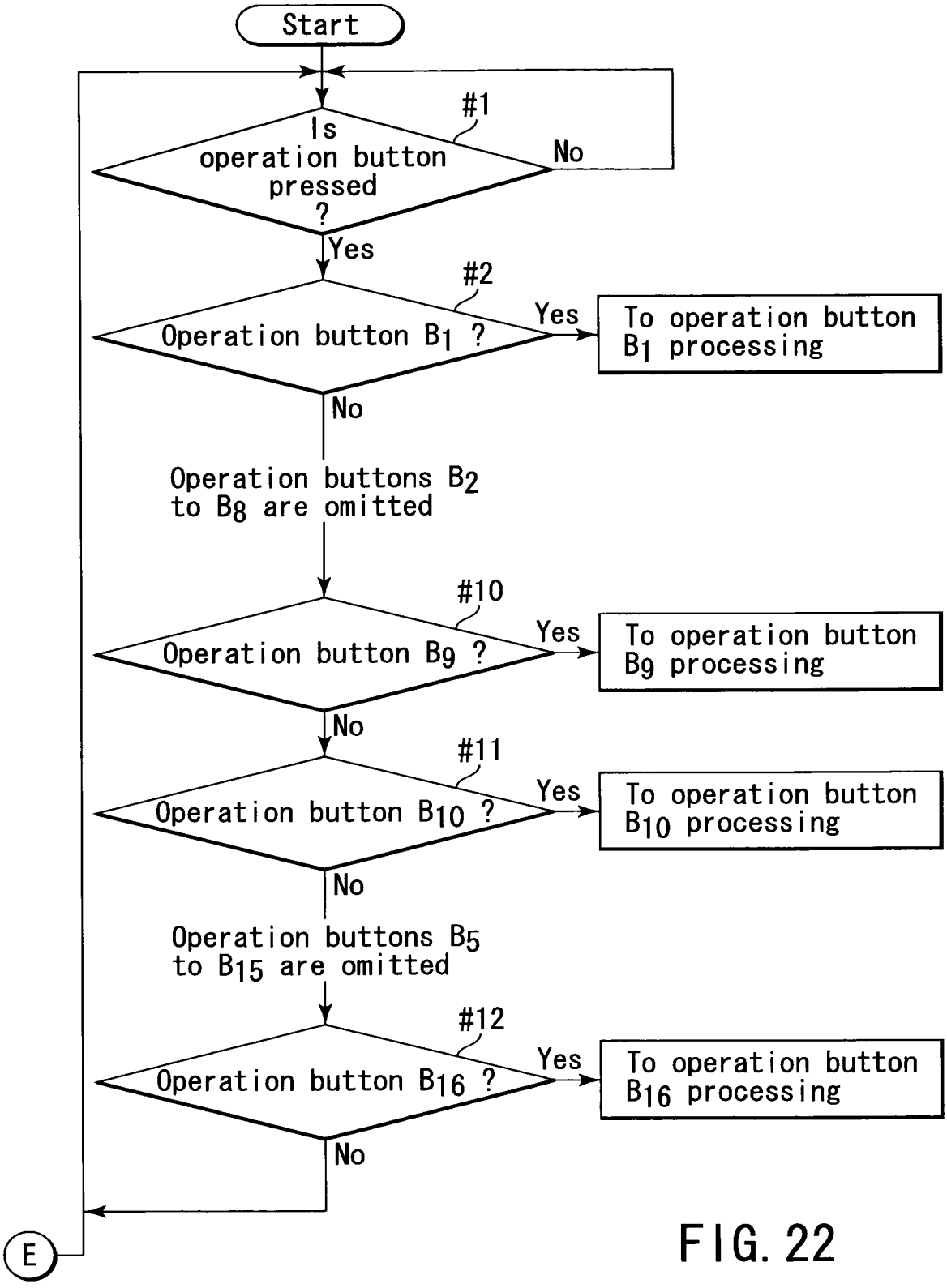

Start
#1
Is operation button pressed ?
No
Yes
#2
Operation button B1 ?
Yes
To operation button B1 processing
No
Operation buttons B2 to B8 are omitted
#10
Operation button B9 ?
Yes
To operation button B9 processing
No
#11
Operation button B10 ?
Yes
To operation button B10 processing
No
Operation buttons B5 to B15 are omitted
#12
Operation button B16 ?
Yes
To operation button B16 processing
No
E

FIG. 22

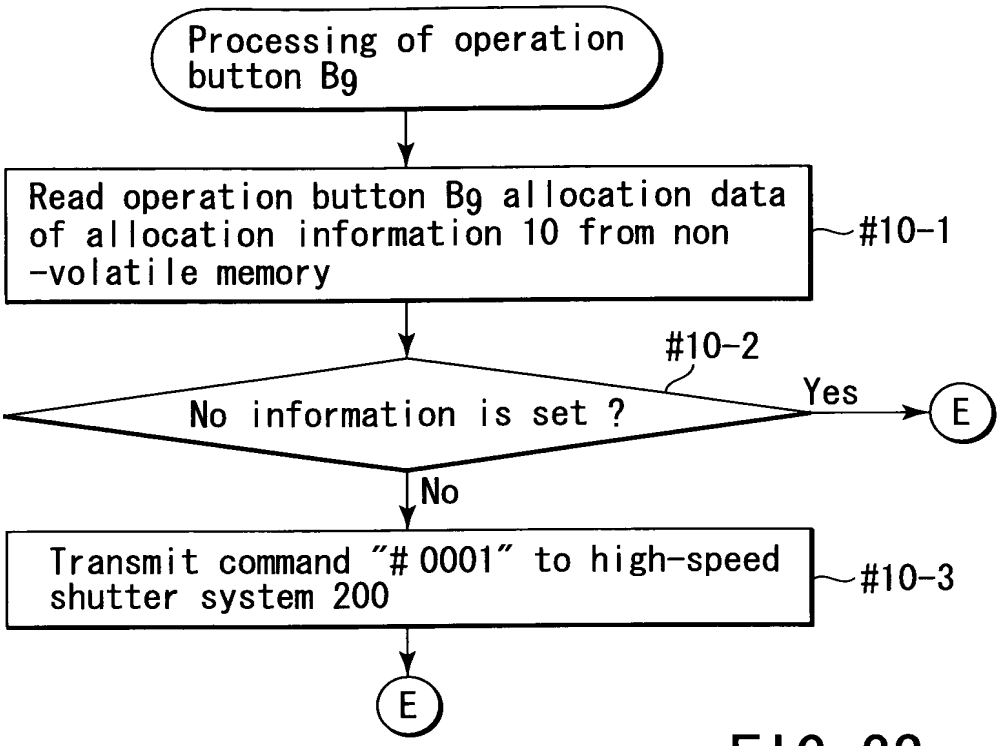

Processing of operation button B9
Read operation button B9 allocation data of allocation information 10 from non-volatile memory
#10-1
#10-2
No information is set ?
Yes
E
No
Transmit command "# 0001" to high-speed shutter system 200
#10-3
E

FIG. 23

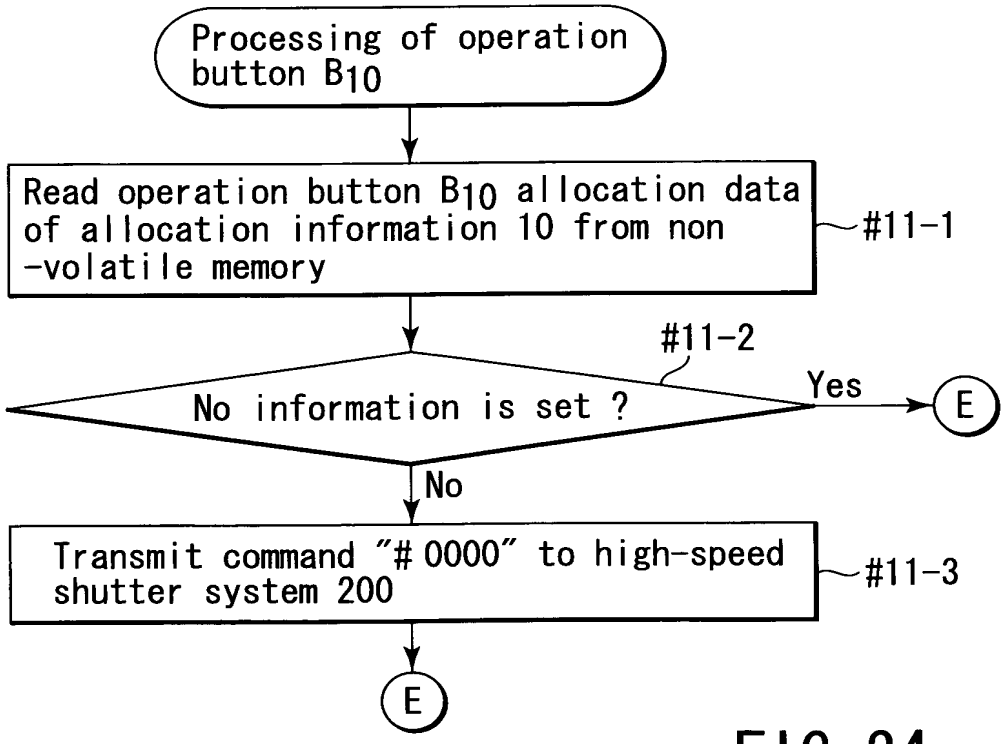

Processing of operation button B10
Read operation button B10 allocation data of allocation information 10 from non-volatile memory
#11-1
#11-2
No information is set ?
Yes
E
No
Transmit command "# 0000" to high-speed shutter system 200
#11-3
E

FIG. 24